

WHAT IS CLAIMED IS:

1. A method for use in a wireless network client to configure the wireless network client to access an appropriate wireless access point in a network environment, the method comprising:

a discovery step of discovering a wireless local network identity of each wireless access point in the network environment;

a monitoring step of monitoring each identified wireless local network for detection of a predetermined broadcast message; and

a configuration step of configuring, in the case that the predetermined broadcast message is detected in the monitoring step, the wireless network client to access the wireless access point corresponding to the wireless local network on which the predetermined broadcast message was detected, and sending a configuration announcement message from the wireless network client on the wireless local network.

2. The method according to Claim 1, wherein the discovery step discovers the wireless local network identity of each wireless access point by monitoring each one of a predetermined set of wireless local networks for a beacon message from a wireless access point, and the beacon message contains the wireless local network identity corresponding to the wireless local network on which the beacon message is detected.

3. The method according to Claim 1, wherein the discovery step discovers the wireless local network identity of each wireless access point by sending a probe request message and monitoring for detection of a probe response message issued by a wireless access point in response to the probe request message, the probe response message containing the wireless local network identity corresponding to the wireless local network on which the probe response message is detected.

4. The method according to Claim 1, wherein the monitoring step monitors each identified wireless local network for a predetermined period of time.

5. The method according to Claim 1, wherein, in the monitoring step, each one of a plurality of predetermined wireless channels is monitored for each identified wireless local network for a predetermined period of time.

6. The method according to Claim 1, wherein, in the discovery step, the wireless network client obtains a MAC address of the wireless access point and a signal-to-noise ratio corresponding to each discovered wireless local network identity.

7. The method according to Claim 1, wherein, in the monitoring step, the wireless network client records the detection of each predetermined broadcast message in a table entry of a monitor table.

8. The method according to Claim 7, wherein the table entry corresponds to the wireless local network identity of the wireless local network on which the predetermined broadcast message was detected.

9. The method according to Claim 1, wherein, in the monitoring step, in the case that the predetermined broadcast message is not detected in any of the identified wireless local networks after a predetermined period of time, the wireless network client stops monitoring for detection of the predetermined broadcast message.

10. The method according to Claim 1, wherein, in the configuration step, the wireless network client is configured in the case that only one predetermined broadcast message is detected in the monitoring step.

11. The method according to Claim 1, wherein, in the configuration step, the wireless network client records a MAC address of the wireless access point corresponding to the wireless local network of the detected predetermined broadcast message.

12. The method according to Claim 1, wherein the predetermined broadcast message includes a predetermined character string.

13. The method according to Claim 1, wherein the predetermined broadcast message includes an identifier of a computing device which broadcast the predetermined broadcast message.

14. The method according to Claim 1, wherein, in the configuration step, the configuration announcement message sent by the wireless network client is a device discovery announcement in accordance with a device discovery protocol.

15. The method according to Claim 1, wherein, in the configuration step, the configuration announcement message includes a state variable having a value which indicates that the wireless network client is a new device on the wireless local network.

16. The method according to Claim 1, wherein the method is initiated in the case that power to the wireless network client is cycled and the wireless network client is unconfigured.

17. A wireless network client device for accessing an appropriate wireless access point in a wireless network environment, comprising:

a program memory for storing process steps executable to perform a method according to any of Claims 1 to 16; and

a processor for executing the process steps stored in said program memory.

18. Computer-executable process steps stored on a computer readable medium, said computer-executable process steps for configuring a wireless network client to access an appropriate wireless access point in a wireless network environment, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 1 to 16.

19. A computer-readable medium which stores computer-executable process steps, the computer-executable process steps for configuring a wireless network client to access an appropriate wireless access point in a wireless network environment, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 1 to 16.

20. A method for use in a computing device which is configured to access a particular wireless access point in a network environment, the method for configuring a wireless network client to access the particular wireless access point, the method comprising:

- a broadcast step of initiating broadcasts from the computing device of a predetermined broadcast message on a wireless local network which corresponds to the particular wireless access point;

- a monitoring step of monitoring the wireless local network which corresponds to the particular wireless access point for detection of a configuration announcement message from the wireless network client; and

- a termination step of terminating, in the case that the configuration announcement message is detected in the monitoring step or in the case that a timeout period has elapsed, the broadcasts from the computing device of the predetermined broadcast message.

21. The method according to Claim 20, wherein the method is performed in response to a user input to the computing device.

22. The method according to Claim 20, wherein, in the broadcast step, the predetermined broadcast message contains a predetermined character string.

23. The method according to Claim 20, wherein, in the broadcast step, the predetermined broadcast message contains an identifier corresponding to the computing device.

24. The method according to Claim 20, wherein, in the broadcast step, the predetermined broadcast message is broadcast periodically at a predetermined time interval.

25. The method according to Claim 20, wherein, in the broadcast step, the predetermined broadcast message is a UDP broadcast message.

26. The method according to Claim 20, wherein the configuration announcement message from the wireless network client is a device discovery announcement in accordance with a device discovery protocol.

27. The method according to Claim 20, wherein the configuration announcement message from the wireless network client includes a state variable which indicates whether the wireless network client is a new device on the wireless local network, and includes a MAC address of the wireless network client.

28. The method according to Claim 27, wherein in the terminating step, the broadcasts of the predetermined broadcast message are terminated in the case that the configuration announcement message is detected and if the state variable in the configuration announcement message indicates that the wireless network client is a new device on the wireless local network.

29. The method according to Claim 20, further comprising the step of:

a generating step of generating an error message in the case that the timeout period has elapsed and there has been no detection in the monitoring step of a configuration announcement message containing an indication that the wireless network client is a new device on the wireless local network.

30. The method according to Claim 29, wherein the error message generated in the generating step initiates a user-interface message on a display connected to the computing device, and the user-interface message indicates that manual identification of a wireless local network identity is required for use by the wireless network client.

31. The method according to Claim 30, wherein the displayed user-interface message includes a list of wireless local network identities in the wireless network environment.

32. The method according to Claim 31, wherein, in response to a user selection of a displayed wireless local network identity, a configuration message is sent from the computing device to the wireless network client which contains the user selected wireless local network identity for configuring the wireless network client.

33. The method according to Claim 29, wherein the error message generated in the generating step initiates a user-interface message on a display of a network peripheral on the wireless local network, and the user-interface message indicates that manual identification of a wireless local network identity is required for use by the wireless network client.

34. The method according to Claim 33, wherein the displayed user-interface message includes a list of wireless local network identities in the wireless network environment.

35. The method according to Claim 34, wherein, in response to a user selection of a displayed wireless local network identity, a configuration message is sent from the computing device to the wireless network client which contains the user selected wireless local network identity for configuring the wireless network client.

36. A computing device configured to access a particular wireless access point in a wireless network environment and enabled to configure a wireless network client to access the particular wireless access point, the computing device comprising:

a program memory for storing process steps executable to perform a method according to any of Claims 20 to 35; and

a processor for executing the process steps stored in said program memory.

37. Computer-executable process steps stored on a computer readable medium, said computer-executable process steps for use in a computing device which is configured to access a particular wireless access point in a wireless network environment, for configuring a wireless network client to access the particular wireless access point, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 20 to 35.

38. A computer-readable medium which stores computer-executable process steps, the computer-executable process steps for use in a computing device which is configured to access a particular wireless access point in a wireless network environment, for configuring a wireless network client to access the particular wireless access point, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 20 to 35.